

## Sharing the land, shaping the future

In Lebanon, social consensus and institutional revival were key ingredients in the search for a sustainable land use strategy

*A major accomplishment of the “Sustainable Improvement of Marginal Lands in Lebanon” project was to help communities in Lebanon’s poor Arsaal district overcome social strife and chart a new course toward the sustainable use of an overstretched resource. But in the process, it had unexpected impacts – contributing to the revival of a moribund municipal government and prompting Lebanese researchers and international donors to adopt a new approach to environmental research.*

There’s a strong sense of history that clings to Arsaal, a sparsely populated, semi-arid highland area that stretches across 36,000 hectares in northeastern Lebanon, up to the Syrian border.

The town of Arsaal (the surrounding countryside goes by the same name) was first recorded some 350 years ago, and monuments in its cemetery date back 100 years. In recent memory, it was a town mostly of tents, although most have now been replaced by stone houses. Many residents of the area still earn their livelihood from animal herding – indeed, goats and sheep outnumber the people by nearly two-to-one.

But change has been coming to Arsaal, bringing both good news and bad.

Stone fruit trees—introduced in 1952 by a local known as the Cherry Man, who brought the first cherry sapling—were not expected to thrive in this parched area. In the half-century or so since, however, orchards have flourished. This means, paradoxically, that at a time when deforestation is a major concern elsewhere, one of Lebanon’s driest places is getting greener. Arsaal now has some two million trees (mostly cherry and apricot) that provide a major source of income for 60 percent of its population.

Yet the underside of this economic surge has been intensified social conflict and environmental uncertainty. Fruit farmers have “enclosed” some of the best lands for cultivation, disrupting and shortening the herds’ migration patterns and denying herders the use of lands they had relied

upon during the driest periods. Local institutions have not been strong enough to resolve the differences between herders and farmers, who come from different families and social classes. And this social divide has been exacerbated by deepening income disparities, since fruit growing families are able to earn more, with less effort, than herders.

### Looming ecological problems

The growth of the fruit industry also raised concerns about soil degradation. In *Research for Development in the Dry Arab Region – The Cactus Flower*, by researchers Shadi Hamadeh, Mona Haidar, and Rami Zurayk (copublished by Southbound and IDRC in 2006), an Arsaali schoolteacher laments that: “The people don’t know how to look after their land properly; they were shepherds before. The soil is becoming weak, and now there is less common land for the remaining shepherds to use.”

Added to these problems is a further layer of conflict that emerged when outsiders began quarrying rock in the area. Because the practice started during Lebanon’s civil war when Arsaal had no functioning municipal government, quarry operators didn’t need to worry about permits or community oversight – often they just grabbed the land and shut out traditional users. Today, the dust from these quarries smothers nearby fruit trees, and truck traffic is a significant cause of road accidents.



## A need for overlapping solutions

Dealing with this interlocking web of environmental, economic, and social challenges has required wide-ranging multidisciplinary research, undertaken in close contact with communities over a number of years. A two-phase project supported by IDRC, named *Sustainable Improvement of Marginal Lands in Lebanon*, had a complex mandate. One of its objectives was to help communities find and practice more sustainable forms of land use management. But before it could do that, it had to help create and nourish the institutions through which communities could work out their differences and establish some common goals.

The authors of *The Cactus Flower* – who also collaborated as researchers on the *Sustainable Improvement* project – note that the simultaneous challenges unfolding in Arsaal required a multitude of tools. “Our repertoire,” they write, “included participatory geographic information systems, blending community participation with state of the art satellite imagery; different forms of institutional bricolage, such as a local users’ network, cooperatives and communication platforms; and new paradigms for development research, such as sustainable livelihood approach and embedded research.”

The IDRC-supported researchers – who were based at the American University of Beirut (AUB) but who would, in many cases, live in the community for long periods – worked closely with the Arsaal Rural Development Association (ARDA), a local NGO. ARDA functioned like a kind of surrogate municipal government during the time when formal structures did not exist. It later helped to restore strength to the reinstated local council by creating the means for citizens to participate in the decision-making process.

One example of this is the local users’ network, which ARDA and the AUB researchers designed along the lines of the Arab *majlis*, or councils that facilitate face-to-face dialogue as a means of dispute resolution. This traditional form was augmented by modern methods such as the use of video cameras. The researchers believed that making videos allowed for a more candid and thorough exchange of information: people expressing their grievances on video would speak their minds more directly than in a formal town-hall setting, while citizens who watched the videos had more time to consider the others’ point of view.

Other aspects of the work relied on similar marriages of modern technology and participatory methods. For instance, GIS modeling and satellite photos mapping soil types and water run-off patterns have helped community members plan for the construction of a reservoir – a lynchpin in the community’s plan to shift to a more sustainable style of management.

## Real benefits for communities

David Brooks, a water expert who authored an evaluation of the Arsaal project for IDRC, is unequivocal in his assessment of the project’s community-level impact.

“The two phases of work in Arsaal were successful by almost any standard,” he writes. Community members were deeply involved in the research program, and have often seen tangible benefits as a result. For example, ARDA and AUB staff helped institute several cooperatives, a women’s food-processing business and carpet weaving enterprise that continue to function. Farmers and pastoralists have tapped into new information sources that have helped them reduce the high losses associated with the pests, water stress, and poor roads typical of their area. In general, community members made use of the resources that became available – over 500 farmers, for instance, have participated in agricultural workshops associated with the project.

The project’s success is also reflected in its favourable reception outside the immediate area. Within Lebanon, the Arsaal experience has become a point of discussion in other communities, with aspects of its work being replicated in other areas. For example, four other herder co-operatives have been created based on the Arsaal model. Further afield, the United Nations Development Programme has cited the Arsaal project as an example of “best practice in sustainable development.” Meanwhile, an official with the German aid agency GTZ, which adopted the Arsaal approach for its work against desertification, has praised the project for the “enormous intellectual investment” it brought to Arsaal.

## An unexpected policy dimension

Influencing policymakers and the policy-making process was not an explicit objective of the project at the outset. However, Brooks finds that it did make itself felt in the sphere of public policy in a variety of different ways and to differing degrees.



He categorizes the project's three levels of policy influence as:

- a) "upward" (influencing national institutions);
- b) "horizontal" (influencing the practices of researchers and research institutions); and
- c) "downward" (influencing local institutions and local people). Ranking the extent of influence in these three areas, Brooks found the greatest impact was horizontal, the second greatest was downward, and the least was upward.

A primary explanation for the relative lack of impact on national institutions is that the sparsely-populated Arsaal region has been, historically, largely invisible to national authorities. The area's poverty and inadequate transportation to the area have contributed to the longstanding marginalization of Arsaal.

Comments Brooks: "Over and over I heard the Arsaal region described as isolated. This is a remarkable way to describe a region that one can reach in a morning's drive from the capital, Beirut. Yet there is no question that the feeling of isolation is real."

This situation hasn't changed much since the project ended in 2004. "The Ministry of Agriculture as an institution has remained relatively impervious to both the process and the results of the Arsaal study," reports Brooks. For example, the major concerns in Arsaal (notably pastoralism and land range management) remain well down on the national ministry's list of priorities. But there are some positive signs: "Extension officers now attend workshops given in Arsaal, and members of parliament from the region do take issues on a one-by-one basis to high levels for action."

This tepid impact on national policy does not mean, however, that the project has not had a significant overall influence on how environmental policy is made. The municipal government has identified strongly with the Arsaal project and has adopted its goals. This is important because municipalities have much of the mandate to enact environmental legislation, though they often lack the resources to act on that mandate. Indeed, some current municipal officials previously held positions with the NGOs involved in the Arsaal project. Brooks also notes that local community organizations that grew out of the project have cultivated links to the political process, particularly at the municipal level.

## Changing the research agenda

The Arsaal project's biggest impact was felt at the points where research and policy-making intersect. The Arsaal example seems to have persuaded researchers and donor organizations in Lebanon to approach resource-use issues in new ways.

For example, one of the project's primary influences over AUB (already one of the strongest research institutions in the Arab world) was to reinstate the role of field work. Previously, most work had been conducted in the lab or on the AUB farm. Now, AUB researchers favour working in close contact with communities, in a way that links research findings with development outcomes. In addition, the Arsaal experience prompted AUB to create, in 2001, its multidisciplinary Environment and Sustainable Development Unit (ESDU). The unit is now delivering programs in research, education and training, and outreach in two other areas of Lebanon. There are plans to eventually transform the ESDU into a regional centre of excellence in sustainable development.

Officials with the governmental Lebanese Agriculture Research Institute (LARI), also indicate "that the Arsaal projects have had an enormous influence on how they see their role and how they structure their research", recounts Brooks. Among the most prominent changes is the adoption of a more participatory model in LARI's own research projects. International agencies like the regional International Centre for Agricultural Research in Dry Areas and Germany's GTZ have also adopted major aspects of the Arsaal model.

While these changes at the institutional level may seem sudden and dramatic, back on the ground in Arsaal, change comes slowly and more incrementally. The work of new local organizations shows there is a greater capacity at the community level, and this is being noticed – to some extent – at the national level.

"Arsaal is on the map, though still considered remote and unimportant," concludes Brooks. "The marginalization of Arsaal will not end quickly, but it is less marginal today than at the time the projects were started, and that is an important indicator of policy influence."



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### Some lessons

- ❑ In situations of conflict, it is important to work closely with communities, local NGOs and councils.
- ❑ A multidisciplinary approach is key to resolving complex problems.
- ❑ There are multiple advantages to mixing modern and traditional methods.
- ❑ Political stability and concrete economic gains are often mutually reinforcing goals.

**The International Development Research Centre (IDRC)** is a Canadian public corporation, created to help developing countries find solutions to the social, economic, and natural resource problems they face. Support is directed to building an indigenous research capacity. Because influencing the policy process is an important aspect of IDRC's work, in 2001 the Evaluation Unit launched a strategic evaluation of more than 60 projects in some 20 countries to examine whether and how the research it supports influences public policy and decision-making. The evaluation design and studies can be found at: [www.idrc.ca/evaluation\\_policy](http://www.idrc.ca/evaluation_policy)